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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,717	03/29/2004	Francimar Schmitt	AMAT/8568/DSM/BCVD/JW	3736

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EXAMINER	
LAFOND, RONALD D	

ART UNIT	PAPER NUMBER
1792	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/812,717	SCHMITT ET AL.	
	Examiner	Art Unit	
	Ronald D. Lafond	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) *8* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 9-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on October 23, 2007, has been entered.

2. In the Amendment entered on October 23, 2007, Claim 7 was amended and Claim 8 was canceled. Claims 1 – 7 and 9 – 14 are currently pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1 – 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li, et al. (United States Patent Application Publication US 2003/0194495, hereafter Li) in view of Allman, et al (United States Patent 6,211,096).

5. Regarding Claim 1, Li teaches a method for depositing a low dielectric constant film comprising (see Paragraph [0008], and Claim 1): a) delivering a gas mixture comprising: I) a cyclic organosiloxane; and II) two or more oxidizing gases comprising N_2O and O_2 (see Paragraphs [0015] and [0053]) to a substrate in a chamber; and b) applying RF power to the gas mixture at conditions sufficient to deposit a low dielectric constant film on a surface of the (see again Paragraphs [0008] and [0015], and Paragraphs [0061] and [0063]).

However, Li does not teach that the ratio of a flow rate of the N_2O to a total flow of the two or more oxidizing gases into the chamber is between about 0.1 and about 0.5. Allman teaches just such a limitation, wherein, in a plasma-enhanced chemical vapor deposition (PE-CVD) process, adjusting the

relative amounts of N_2O or O_2 used in an oxidizing gas stream consisting of only N_2O and O_2 can allow the user to tune the dielectric constant of the oxide film produced (see especially Column 4, lines 32 – 47 of Allman). In one embodiment, Allman teaches a flow rate of 2 l/min for N_2O and 6 l/min for O_2, for a ratio of the flow rate of the N_2O to the total flow of the oxidizing gases into the chamber of 0.25 (see Column 7, lines 6-8 of Allman), which falls within the range claimed by Applicants. As it states in the Abstract of Allman, "By controlling the ratio of nitrogen to oxygen in the source gas as used in the CVD method, the ultimate nitrogen, carbon ... concentrations in the film can be controlled and hence the dielectric constant of the film so produced." Therefore, it would have been obvious to one having ordinary skill in the art at the time of the present invention to have modified the method taught by Li by using an oxidizing gas composition as described in Allman to have further tuned the dielectric constant of the film being produced via the PE-CVD process disclosed in Li.

6. Regarding Claim 2, Li does not explicitly teach the method wherein the two or more oxidizing gases consist of N_2O and O_2. However, Li does teach, in Paragraph [0053], that "the one or more oxidizing gases may include oxygen, ... nitrous oxide, ... or combinations thereof." Therefore, it would have been obvious to one having ordinary skill in the art at the time of the present invention to have selected N_2O and O_2 as the sole components of the oxidizing gas stream, because Li teaches that any combination of these gases may be used as the oxidizing gas in this method.

7. Regarding Claims 3 – 5, Li teaches that the cyclic organosiloxane is OMCTS (see Paragraph [0019]), and that the gas mixture further comprises an inert gas selected from the group consisting of helium, argon, and combinations thereof (see Paragraph [0077]).

8. Claims 1 – 5 are also rejected under 35 U.S.C. 103(a) as being unpatentable over Shioya, et al. (United States Patent Application Publication US 2001/0034140 A1, hereafter Shioya) in view of Allman.

9. Regarding Claim 1, Shioya teaches a method for depositing a low dielectric constant film (see Paragraph [0002]), comprising: delivering a gas mixture comprising: a cycle organosiloxane (see Paragraphs [0076], [0077], and [0080]); and two or more oxidizing gases comprising N_2O and O_2 (see Paragraph [0081]) to a substrate in a chamber (see again Paragraph [0076]); and applying RF power to

the gas mixture at conditions sufficient to deposit a low dielectric constant film on a surface of the substrate (see, e.g., Paragraphs [0076] and [0083]).

Just as in Li, Shioya does not teach that the ratio of a flow rate of the N_2O to a total flow of the two or more oxidizing gases into the chamber is between about 0.1 and about 0.5. Claim 1 is rejected over Shioya in view of Allman for substantially the same reasons given for Claim 1 discussed above in Paragraph 5.

10. Regarding Claim 2, Shioya does not explicitly teach the method wherein the two or more oxidizing gases consist of N_2O and O_2. However, as discussed, Shioya does teach, in Paragraph [0081], that "N_2O, O_2, H_2O, [and] CO_2 [may be used] as the oxidizing gas ... and at least one of them may be contained in the reaction gas." Therefore, it would have been obvious to one having ordinary skill in the art at the time of the present invention to have selected N_2O and O_2 as the sole components of the oxidizing gas stream, because Shioya teaches that any combination of these gases may be used as the oxidizing gas in this method.

11. Regarding Claims 3 – 5, Shioya teaches the method wherein the cyclic organosiloxane is octamethylcyclotetrasiloxane (OMCTS) (see Paragraphs [0056] – [0060]), and the method wherein the gas mixture further comprises an inert gas selected from the group consisting of helium and argon (see Paragraph [0082] and Table 1).

12. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Li and Allman, and further in view of Ross, et al (United States Patent 6,582,777). Li in view of Allman is cited for the reasons discussed above, which are incorporated herein.

13. Li and Allman do not teach the method further comprising post-treating the low dielectric constant film with an electron beam. Ross teaches just such a limitation (see Summary of the Invention of Ross, Column 3, lines 55 – 60, "The invention also provides a process for forming a dielectric layer on a substrate which comprises chemical vapor depositing a dielectric layer on a substrate and then exposing the chemical vapor deposited dielectric layer to electron beam radiation for a sufficient time, temperature, electron beam energy and electron beam dose to reduce the dielectric constant of the layer.") As discussed above, Li teaches a method for producing low dielectric constant films. Therefore, it would

have been obvious to one having ordinary skill in the art at the time of the present invention to have modified the method taught by Li in view of Allman by using the e-beam treatment taught by Ross to have further reduced the dielectric constant of the low dielectric constant film.

14. Claim 6 is also rejected under 35 U.S.C. 103(a) as being unpatentable over Shioya in view of Ross. Shioya and Ross are cited for the reasons discussed above, which are incorporated herein.

15. Shioya also does not teach the method further comprising post-treating the low dielectric constant film with an electron beam, but, as in Li, teaches a method for producing low dielectric constant films. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the present invention to have modified the method taught by Shioya by using the e-beam treatment taught by Ross to have further reduced the dielectric constant of the low dielectric constant film.

16. Claims 7 and 9 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li in view of Allman. Li in view of Allman is cited for the reasons discussed above, which are incorporated herein.

17. Regarding Claim 7, as amended it is substantially identical to Claim 1, but adds the limitations that the oxidizing gas consists essentially of N_2O and O_2 (addressed in the rejection of Claim 2, above) and that the N_2O is delivered into the chamber at a flow rate between about 0.71 sccm/cm^2 and about 1.42 sccm/cm^2 of substrate surface.

Li in view of Allman does not explicitly teach the method wherein the N_2O is delivered into the chamber at a flow rate between about 0.71 sccm/cm^2 and about 1.42 sccm/cm^2 of substrate surface. However, Li does teach that "the oxygen containing gas has a flow rate between about 100 and about 6,000 sccm" (see Paragraph [0061]). Li describes this process for a 200 mm substrate (see Paragraph [0084]), which has a surface area of about 300 cm^2, assuming a circular substrate with a 200 mm diameter; this corresponds to a flow rate of between about 0.32 and about 19 sccm/cm^2, which completely encompasses and thus renders obvious the range of about 0.71 sccm/cm^2 to about 1.42 sccm/cm^2 of claim 7. ("In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a *prima facie* case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Circ. 1990)." See MPEP 2144.05 I). Therefore, it would have been obvious to one having ordinary skill in the art to have chosen a flow rate

from within the disclosed operative range, such as 0.71 – 1.42 sccm/cm^2 in the method of Li in view of Allman, because Li teaches that such conditions are suitable for deposition.

18. Regarding Claims 9 and 10, Li teaches the method of Claim 7, wherein the gas mixture further comprises a linear hydrocarbon, and wherein the linear hydrocarbon is ethylene (see Paragraph [0052]). Regarding Claims 11 and 12, Li teaches that the cyclic organosiloxane is OMCTS (see Paragraph [0019]). Regarding Claim 13, Li teaches that the gas mixture further comprises an inert gas selected from the group consisting of helium, argon, and combinations thereof (see Paragraph [0077]).

19. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Li in view of Allman as applied to Claim 7 above, and further in view of Ross, for substantially the same reasons given for Claim 6 above.

20. Claims 7 and 9 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shioya in view of Allman. Shioya in view of Allman is cited for the reasons discussed in the rejection of Claim 1 above, which are incorporated herein.

21. As discussed regarding Claim 7, as amended it is substantially identical to Claim 1, but adds the limitations that the oxidizing gas consists essentially of N_2O and O_2 (addressed in the rejection of Claim 2, above) and that the N_2O is delivered into the chamber at a flow rate between about 0.71 sccm/cm^2 and about 1.42 sccm/cm^2 of substrate surface.

Shioya in view of Allman does not explicitly teach the method wherein the N_2O is delivered into the chamber at a flow rate between about 0.71 sccm/cm^2 and about 1.42 sccm/cm^2 of substrate surface. However, Shioya does teach, in Paragraph [0123], that an 8-inch silicon wafer is used, which corresponds to a 20 cm diameter wafer, which corresponds to an area of approximately 300 cm^2 of wafer surface area. Furthermore, in Paragraphs [0079] – [0083], and especially in Tables 1 and 2, Shioya teaches that the flow rate of N_2O in this method may be 200 sccm, which corresponds to 0.67 sccm/cm^2, which is about 0.71 sccm/cm^2. Similarly, a *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). See MPEP 2144.05 I. Therefore, it would have been obvious to one

having ordinary skill in the art at the time of the present invention to have modified the method taught by Shioya in view of Allman by delivering the N_2O into the chamber at a flow rate of about 0.71 sccm/cm^2, because Shioya teaches that such conditions for deposition are known.

22. Regarding Claims 9 and 10, Shioya in view of Allman does not explicitly teach the method wherein the gas mixture further comprises a linear hydrocarbon, and wherein the linear hydrocarbon is ethylene. However, Shioya does teach that linear hydrocarbons such as ethylene may be used to help reduce the dielectric constant in films produced via plasma deposition from other types of organosilicon precursors with oxidizing gases (see Paragraphs [0092] – [0100], and especially Paragraphs [0099] and [0100]). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the present invention to have modified the method taught by Shioya in view of Allman by utilizing a gas mixture further comprising ethylene as taught in Shioya, because Shioya teaches that the inclusion of such precursors helps reduce the dielectric constant of the film produced using similar organosilicon precursors.

23. Regarding Claims 11 and 12, Shioya teaches that the cyclic organosiloxane is OMCTS (see Paragraphs [0056], [0058], and [0060]). Regarding Claim 13, Shioya teaches that the gas mixture further comprises an inert gas selected from the group consisting of helium or argon (see Paragraph [0082] and Table 1).

24. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shioya in view of Allman as applied to Claim 7 above, and further in view of Ross, for substantially the same reasons given for Claim 6 above.

Double Patenting

25. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

26. Claims 1 – 5 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1, 9, and 13 of U.S. Patent No. 6,797,643 in view of Allman, for substantially the same reasons given for Claims 1 – 5 above.

27. Claim 6 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claim 1 of U.S. Patent No. 6,797,643 in view of Allman, and further in view of Ross, for substantially the same reasons given above regarding Claim 6.

28. Claims 7 and 9 – 13 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1, 9, 13, and 14 of U.S. Patent No. 6,797,643 in view of Allman and further in view of Li. As discussed above, Claim 7 is essentially identical to Claim 1, but adds the limitation that the N_2O be delivered into the chamber at a flow rate of between about 0.71 and about 1.42 sccm/cm^2 of substrate surface. However, Li discloses just such a limitation, as described above. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the present invention to have used the N_2O flow rates disclosed in Li in the film deposition process disclosed in the '643 patent, because Li teaches that such conditions are suitable for deposition (see Paragraph [0061] of Li, and Paragraph 17 in this Action for further analysis). Claims 9 and 10 of the present application read directly on Claim 14 of the '643 patent, in view of Allman and Li. Claims 11 and 12 of the present application read directly on Claims 9 and 13 of the '643 patent, in view of Allman and Li. Claim 13 of the present application reads directly on Claim 1 of the '643 patent, in view of Allman and Li, wherein the gas mixture further comprises an inert gas selected from the group consisting of helium, argon, and mixtures thereof, as disclosed in the Specification of the '643 patent in Column 9, lines 14 – 22.

29. Claim 14 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,797,643 in view of Allman and Li, and further in view of Ross, for substantially the same reasons given above regarding Claim 6.

30. Claims 7 and 9 – 13 are also rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1, 9, 13, and 14 of U.S. Patent No. 6,797,643 in view of Allman and further in view of Shioya. As discussed above, Claim 7 is essentially identical to Claim 1, but adds the limitation that the N_2O be delivered into the chamber at a flow rate of between about 0.71 and about 1.42 sccm/cm^2 of substrate surface. However, Shioya discloses just such a limitation, as described above. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the present invention to have used the N_2O flow rates disclosed in Shioya in the film deposition process disclosed in the '643 patent, because Shioya teaches that such conditions are suitable for deposition (see Paragraph 21 of this Action for further analysis). Claims 9 and 10 of the present application read directly on Claim 14 of the '643 patent, in view of Allman and Shioya. Claims 11 and 12 of the present application read directly on Claims 9 and 13 of the '643 patent, in view of Allman and Shioya. Claim 13 of the present application reads directly on Claim 1 of the '643 patent, in view of Allman and Shioya, wherein the gas mixture further comprises an inert gas selected from the group consisting of helium, argon, and mixtures thereof, as disclosed in the Specification of the '643 patent in Column 9, lines 14 – 22.

31. Claim 14 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claim 1 of U.S. Patent No. 6,797,643 in view of Allman and Shioya, and further in view of Ross, for substantially the same reasons given above regarding Claim 6.

Response to Amendment

32. The Declaration filed on October 23, 2007, under 37 CFR 1.131 has been considered but is ineffective to overcome the Li reference. In the instant case, not all of the inventors of the present invention have made and signed the Declaration. Should this deficiency be corrected, it appears that the Declaration otherwise meets all of the further requirements of Declarations under 37 CFR 1.131, and would thus disqualify the Li reference from being used as prior art under 35 U.S.C. 102(a).

Response to Arguments

33. Applicant's arguments filed October 23, 2007, have been fully considered but they are not persuasive.

34. Due to the amendment of Claim 7, the rejections to claims 7 – 14 under 35 U.S.C. 112, Second Paragraph, are hereby withdrawn.

35. In Applicants' Remarks under Claim Rejections in Section B, Applicants invoke 35 U.S.C. 103(c) to disqualify Li as prior art under 35 U.S.C. 103(a). However, as discussed above, the Declaration filed under 37 CFR 1.131 is ineffective, and thus Li remains valid as prior art under 35 U.S.C. 103(a) at the present time. The Examiner notes that correcting the deficiencies in the current Declaration will indeed preclude Li from being used as prior art under 35 U.S.C. 103(a) in future Actions.

36. Applicants also argue essentially that Allman is non-analogous art because: a) it teaches varying the ratio of N2O to O2 along with different precursors to produce a low-k or a high-k dielectric film, b) it does not teach the full range of ratios of the flow rate of N2O to the total flow rate of the oxidizing stream of between about 0.1 and about 0.5 claimed by Applicants; and c) it does not teach the use of cyclic organosiloxanes as a precursor.

37. Regarding the first Argument, the Examiner disagrees. Allman explicitly teaches, in Column 4, lines 32 – 47, that "by using N2O alone or as one of the oxidizing source gases, [the organosilicon precursor] is not fully oxidized, leaving carbon behind in the film being produced. By reacting N2O and O2 within selected percentages with [the organosilicon precursor], different percentages of carbon can be left behind in the film ... The use of N2O as the oxidizing gas source also leaves behind nitrogen in the film being produced ... The addition of nitrogen to the film changes the doped silicon dioxide film to a doped oxynitride film. The oxynitride film provides a barrier to water and hydroxyl diffusion, thus allowing a more stable, lower dielectric constant film to be formed." Allman also teaches, in the Abstract, that "by controlling the ratio of nitrogen to oxygen in the source gas as used in the CVD method, the ultimate nitrogen, carbon ... concentrations in the film can be controlled and hence the dielectric constant of the film so produced." Nowhere does Allman teach or indicate that this phenomenon is true only for higher-k film deposition.

38. Regarding the second Argument, Allman need not teach the full range of ratios claimed in order to render them obvious. See MPEP 2144.05. In the absence of unexpected results which, as discussed in a previous Action, are not present, the fact that Allman teaches the method of varying the proportions of

oxidizing gases to help "tune" the dielectric constant of films produced by the plasma deposition of organosilicon precursors would provide sufficient motivation to allow one having ordinary skill in the art to combine the teachings of Li and Allman.

39. Regarding the final argument, it is the Examiner's position that one having ordinary skill in the art would have expected similar results for many different types of organosilicon compounds, and that cyclic organosiloxanes are merely a species of this larger genus. In the absence of evidence of unexpected results of the criticality of the use of cyclic organosiloxanes versus other organosilicon precursors, it is the Examiner's position that the teachings of Allman for the larger genus of organosilicon precursors would have provided sufficient motivation to allow one having ordinary skill in the art to combine the teachings of Li and Allman.

40. In Sections C, D, and E of Applicants' Remarks under Claim Rejections, Applicants argue essentially that Li is precluded from being used as art under 35 U.S.C. 103(a) by invoking 35 U.S.C. 103(c), that Allman does not teach the further limitations of these Claims when combined with Li, and that Ross does not cure any of these deficiencies. The first two points have already been addressed, and because the rejections over Li in view of Allman still stand, Ross need not meet all the limitations taught by Li in view of Allman.

41. Finally, in Applicants' Remarks under Double Patenting, Applicants agree to file a Terminal Disclaimer to obviate the Double Patenting rejections once all other rejections have been withdrawn. The Examiner notes this agreement, but maintains the Double Patenting rejections because the Terminal Disclaimer has not yet been filed.

Conclusion

42. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald D. Lafond whose telephone number is (571) 270-1878. The examiner can normally be reached on M - F, 9:30 AM - 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Cleveland can be reached on (571) 272-1418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RDL

RDL

FRED J. PARKER
PRIMARY EXAMINER